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THE HORN SPEAKER

The first and the standard monthly publication for radio collectors since 1972

Bob Hope

Movie and Radio Guide, August 24, 1940

SCRIPT HUDDLE for the first reading on Sunday night before the preview finds Hope and his gang not quite ready for hard work. Left to right, seated, are Cobina and Brenda, Bob Hope, writer Al Josefsberg, producer Bill Lawrence, announcer Bill Goodwin, secretary Mickey Lusk. Standing are Jerry Colonna, sound-effects expert Walter Snow and engineer Albert Capstaff

OPERATING NOTES
ANALYSES of RADIO RECEIVER SYMPTOMS

Service Men: Please illustrate your operating notes.

Stromberg-Carlson Model 140-P. If distortion, coupling or hum is complained of, or phonograph music distorts at low volume, make certain that the phonograph motorboard floats entirely clear of the cabinet.

Be sure all 4 mounting screws are loosened, and, in excessive cases, remove the motorboard and cushion it on "live" rubber (sponge rubber is best) at center of all 4 sides. This further "damps" the motorboard against vibration.

If distortion persists, check for: (a) dull or defective phonograph needle; (b) old-style records which are not electrical recordings; (c) iron particles on pickup, near needle; (d) damaged pickup head; (e) proper mounting of counterweight; (f) tone control fully operated, limiting volume.

Tri-Focal Eye in Stromberg-Carlson Closes or Over-Laps. Almost without exception, this is due to variations in characteristics of the 6E5 tube, and is corrected by selection of a suitable tube.

First of all, make sure that the 6E5 tube is not "soft" or "gassy," causing a blue glow in the lens of the tube, which can be seen by looking across the tube in a dim light.

Some "hard" (high-vacuum) tubes are also unsuitable. Any tube drawing in excess of 5 ma. plate current *in the receiver circuit* (as measured by a set analyzer, not a tube analyzer) should not be used.

Occasionally the 6E5 tube may be suitable and the difficulty caused by excessive plate current on the 6K7 tube used in the I.F. stage.

Tri-Focal Eye in Stromberg-Carlson Does Not Close Enough. If the shadow on the target of the 6E5 tube does not reduce on nearby signals, then: (a) check the aerial and ground connections for open lead-in, insufficient pick-up, high-resistance joints, etc.; (b) check sensitivity control knob on rear of chassis (models 130 and 140). Clockwise rotation increases sensitivity; (c) check for a faulty tube in the R.F. system, causing low A.V.C. voltage; (d) check for a grounded cathode bias resistor at 6K7 R.F. or 6K7 I.F. socket.

STROMBERG-CARLSON SOLDER NUGGETS

Victor Microsynchronous 1931 Model. Intermittent reception. This model would stop playing suddenly. The signal could be brought back by giving the cabinet a sharp jolt or by stamping on the floor. Any heavy vibration near the set, such as a heavy tread, would cause the familiar "static" effect suggesting loose contacts or wiring break. Socket test showed all OK. Mechanical examination showed no breaks. The trouble was located under the shield covering the tuning condenser at the front of the set immediately below the dial scale. A small condenser, attached by a lug to the coil here was touching the shield. It should be bent back to a position where it can give no further trouble.

Victor R-15 Model, Intermittent Reception. This is the upright chassis in which the condenser gang is mounted vertically at the front of the chassis. The behavior of this set was peculiar. Volume would suddenly drop to practically zero. Sometimes jarring the set would bring the signal back, but mostly, the set refused to respond to this treatment. A touch on the "tuning knob" brought the signal back with a bang, invariably. Again, the owner would turn off the switch—say, to answer a call on the telephone—and would find that when the switch was turned on again the station would not "come back" no matter how long he waited. Here again the slightest attempt at turning the dial would bring back the music with a bang.

Passing over all the things we did (and said), with the chassis removed from the cabinet, we tuned-in a strong station and awaited its disappearance. A touch on the top end of the shaft and back came the music. But the shaft adjustment and rotor contacts, etc., were correct and clean. Again we tuned-in and waited. This time when the music disappeared we slowly and gently pulled off the shield. At about the halfway point the signal crashed in. We could see no cause for it but pressure from the top end of the shield cover on the disc carrying the dial. We took out a slight—very slight—bulge on the top face of the shield by hammering with the end of a screwdriver handle. Shield replaced and all OK. We still have doubts but the set continues to play. So there!

D. & W. HOYLE

A "Universal" Volume Control. A suitable replacement volume control is almost impossible to find for many of the older model "radios." One which can be adapted easily to many of these sets is made by shunting a 0.5-mf. condenser in series with a 0.25-meg. potentiometer from the control-grid of the 1st audio tube to the chassis. The old, defective control may be wired around (and, in some cases, may be left out of the circuit entirely).

Car-Radio Receiver Dials. A lot of trouble will occur in car-radio sets, due to the dial being warped. When this takes place the teeth do not mesh properly to drive the control. A simple method for repairing this is as follows: wrap the dial in a *damp* cloth and place it in a hot oven or sandwich toaster and let it steam flat.

Pilot 68. Servicing aboard ships at sea is especially difficult, owing to lack of essential apparatus. "Customer" (chief engineer) complained: no reception on low band. Upon checking-up I found that the reaction (feedback) coil of the oscillator circuit had blown out, and spare parts were not on hand. Tried to rewind the 6-turn, fine-wire coil with wire of larger size, but no result.

Built a separate, self-contained oscillator around a 30 tube, which replaced the out-of-duty circuit

(Continued on page 318)

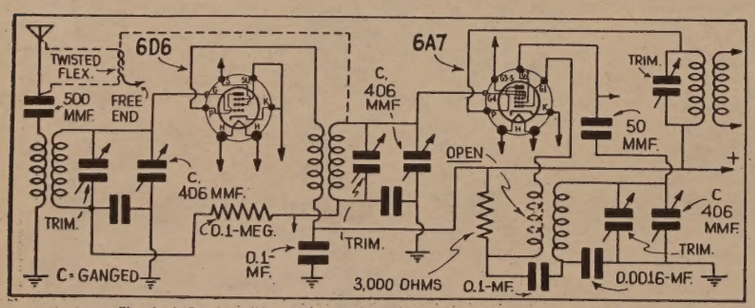

Fig. 1. A Dutch radio operator makes an emergency repair to a Pilot 68.

SERVICING QUESTIONS & ANSWERS

Service Men may write, requesting answers to specific service questions. Address inquiries to Service Editor. For questions answered by mail, a service fee of 25c per question is made. Only questions of wide interest can be published.

DRIFTING

(29) Jacob Unruh, McClusky, N. Dak.

(Q.) I have a Sparton radio set, an 11-tube, model 700, which has some peculiar thing the matter with it. I have this radio set in our service shop, but cannot find the trouble. If I have a station tuned-in on about 550 kc. or thereabouts and then wiggle the dial back and forth or tune away and back again, the volume will go down quite considerably. But if I tune the set to the higher wavelengths and then come back to the lower wavelengths it will be OK again. If we leave the set tuned to 550 kc. and do not detune, it will work perfectly all day without fading away, and it works perfectly on the higher wavelengths. I can also make it snap back by just tapping the variable condensers. Do you suppose the variable condenser shaft is worn and that moving it back and forth at this place will throw it out of line? It has a 4-gang condenser.

(A.) Your inquiry is self-explanatory, and no doubt your trouble is due to the condenser gang shaft which has been bent. This can be overcome by removing the back plate which is mounted with 2 screws on the rear of the gang and reshaping so that the shaft rotates truer. At the same time, add pigtails on each individual condenser in order to make a good ground contact to remedy change in volume which you state takes place when you wiggle the tuning gang back and forth.

STATIONS OFF-CALIBRATION

(30) John R. Boggess, Greenville, Ky.

(Q.) I have a Grunow 580 receiver in my shop which is a headache to me. A 650 kc. station comes in at 800 kc. It seems to be about 150 kc. off, all over the dial. At 550 kc., or around there, it will receive ship signals. This is the first time I have ever experienced this trouble, and so far have failed to find the cause of it. Please try and help me solve this problem.

(A.) A remedy can easily be effected simply by realigning the broadcast padding condenser (designated by the factory number 33065) at 600 kc., at the same time rocking the tuning gang back and forth. It is then necessary to set the dial at 1,400 kc. and adjust the trimmer on the oscillator tuning condenser to maximum signal with the aid of a local test oscillator. It is advisable to adjust the antenna secondary coil trimmer for maximum signal output after the above has been done, in order to obtain full efficiency of your receiver.

HUM IN LANG RADIO SET

(31) Joseph Sylvester, Saratoga Springs, N. Y.

(Q.) My 5-tube A.C.-D.C. Lang set has only 20 V. on the plates of all tubes. Shorting filter choke brings voltage up to normal but introduces excessive hum.

(A.) This condition is due to either badly leaking or "open" filter condensers. Replace with new ones using 12 mf. on rectifier side and 8 mf. on load side of filter choke. This will clear up your trouble. (See Fig. Q.31.)

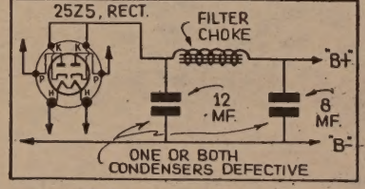

Fig. Q.31. Hum in a Lang set.

If one wishes to obtain the best in tone quality and volume from a cone speaker, it is necessary to make frequent adjustments to the set screw in the apex of the cone. Such adjustments are required to overcome the warping of the cone surface caused by the temperature and atmospheric changes in the average home. Warping of the cone surface forces the driving pin out of line and results in tinny or "muddy" quality with an appreciable loss of volume

Q. In substituting a condenser in the filter system of a power supply where replacement of same type and make cannot be made, what are the principal conditions that must be fulfilled?

A. Firstly, voltage rating. The voltage to which the replaced condenser will be subjected must be determined, and one chosen with a voltage rating about 25 per cent higher than normal filter voltage. This will be reasonably safe, and not unnecessarily expensive. Secondly, the capacity should be about right. If this cannot be determined exactly, it is usually safe to use a 2 mfd. in the first stage of the filter and a 4 mfd. in either of the other two stages.

Q. What is the principal function of by-pass condensers?

A. To complete, to shorten, and to isolate r-f circuits; to pass r-f currents around resistors and around chokes and primaries of audio transformers.

Q. What is the principal cause of so-called line hum, differentiated from the usual hum caused by poor filtering?

A. This type of hum is usually caused by poorly grounded neutral of power supply.

Q. What effect has extreme selectivity upon tone quality, and how can this effect be noted in the output of the speaker?

A. Extreme selectivity in the r-f circuits cuts the side bands, that is, cuts off and eliminates the high notes. This effect is responsible for the deep, tubby, unnatural reproduction heard from some receivers.

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THE ALDRICH FAMILY. Standing: Henry Aldrich, the teen-age son, played by Ezra Stone, and his sister Mary Aldrich, played by Jone Allison. Seated: Alice Aldrich, his mother, played by Katherine Racht, and Sam Aldrich, his lawyer-father, played by House Jameson

THE Aldriches are like those people who live down the block from you. Not rich, not poor, they're the kind of people who *don't* get in the newspapers; yet everybody knows their son Henry, for the sound of his high-pitched, cracking voice (Ezra Stone's) is a Coast-to-Coast warning every Thursday night (NBC) that a laughable schoolboy scrap is at hand. The Aldriches, in fact, are a typical American family who get a typically American kick out of life, and who are afflicted with a typical teen-age son who has an uncanny penchant for getting into mischief. Without avail are the protests of his sister Mary Aldrich (Jone Allison), who is becoming quite a young lady and who consequently stands on her dignity. Without avail also are the half-hearted paternal efforts of Sam Aldrich (House Jameson), who often succeeds only in getting into more mischief himself. Even Mother Aldrich (Katherine Racht) herself, upon whom the final responsibility rests, doesn't have much success in curbing her irrepressible son—and perhaps, like a nation of listeners, doesn't want to. She and they know that Henry solves his own problems in the end. This is the "Aldrich Family," which first came to the networks as a novelty adaptation on Rudy Vallee's show of Ezra Stone's hit play, "What a Life," which was quickly snapped up by Ted Collins for the "Kate Smith Hour" and which now is radio's most enjoyable comedy serial in its own right—a Thursday night listening-treat.

MODEL 84 PETER PAN MIDGET SET

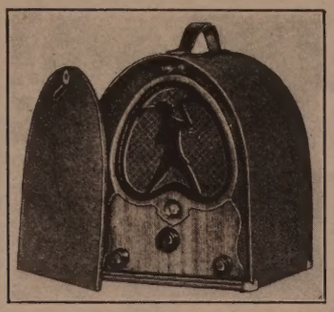


Fig. C

The Peter Pan; it is only 12 in. high.

ONE of the very smallest of the small-type radio receivers recently offered to the consumer trade is the Model 84 Peter Pan Midget Set, which is illustrated in Fig. C; its schematic circuit is Fig. 2. This circuit is designed to oscillate (with the volume control set at maximum) up to about 700 kc.

This chassis is designed for an antenna about 15 to 20 feet long; a ground connection ordinarily is not required. As shown, a convenient carrying case suggests the Peter Pan for use anywhere.

For the reference of Service Men, the following operating characteristics are given: Filament potential, V1, V2, V3, 2.2 volts; V4, 4.1 volts. Plate potential, V1, 200 volts; V2, 80 volts; V3, 190 volts. Screen-grid potential, V1, V2, 60 volts; V3, 200 volts. Cathode potential, V1, 1.5 volts; V2 5 volts. Control-grid potential, V3, 13 volts. Plate current, V1, 2.2 ma.; V2, 0.15-ma.; V3, 24 ma.

The Peter Pan, manufactured by Jackson-Bell Co., Ltd., weighs less than 10 lbs.

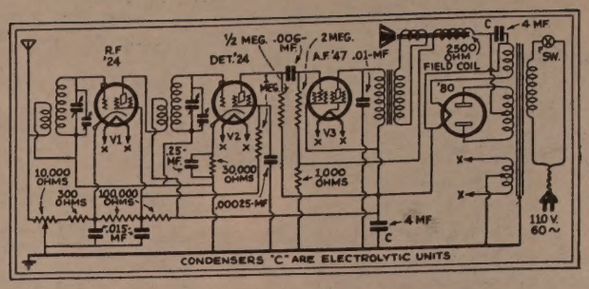
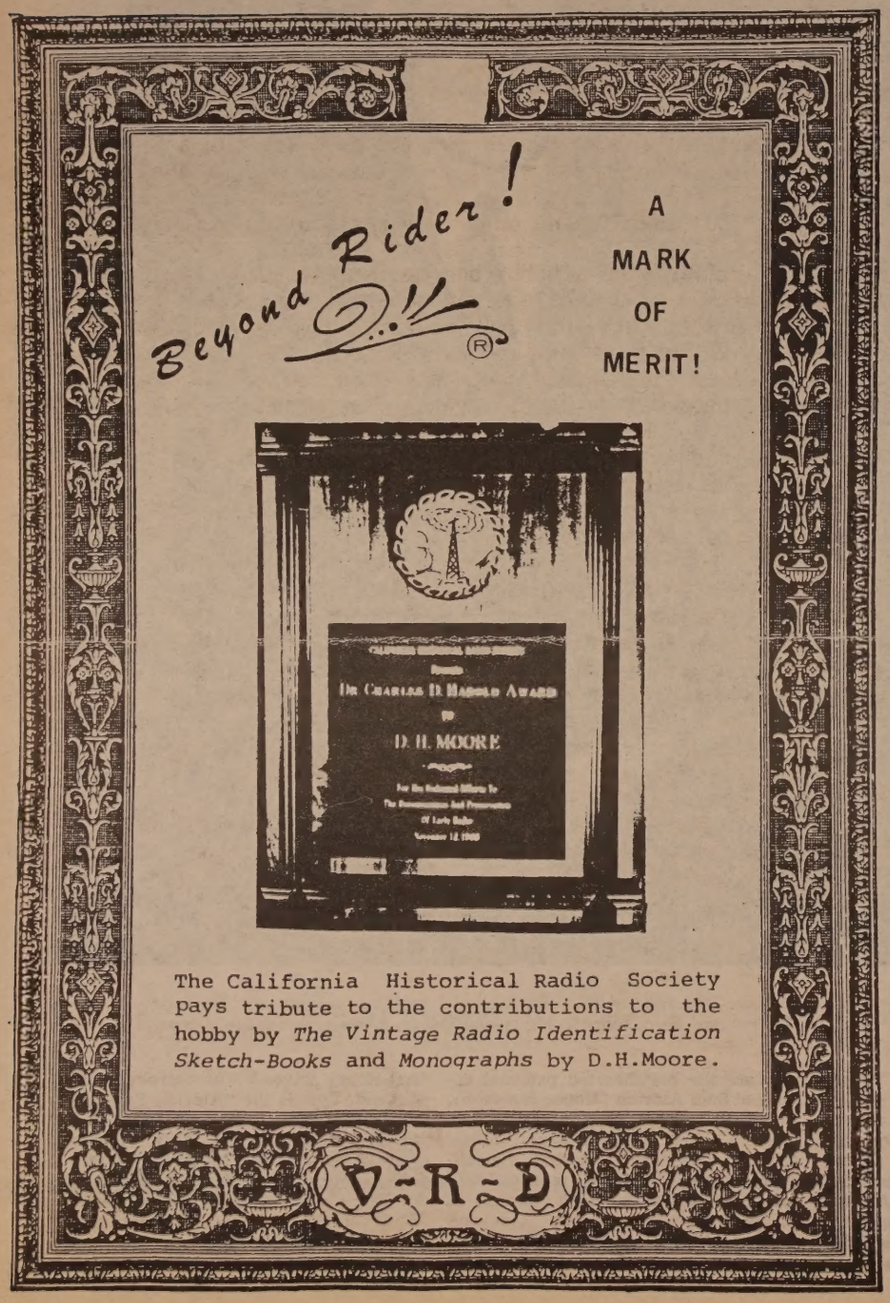


Fig. 2

Schematic circuit of the Peter Pan Model 84 Midget Set.


Beyond Rider!
A MARK OF MERIT!
D. H. MOORE
The California Historical Radio Society pays tribute to the contributions to the hobby by *The Vintage Radio Identification Sketch-Books* and *Monographs* by D.H.Moore.
V-R-D

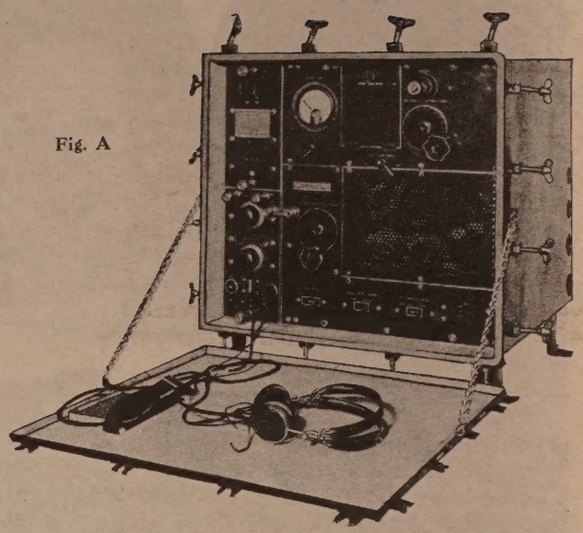


Fig. A

. Lifeboat Model ET 3677 Radio Transmitter-Receiver.

A LIFEBOAT RADIO SET

IN Fig. A is illustrated the newest thing in marine radio equipment: a radio set designed particularly for use in lifeboats, for emergency use.

A number of interesting features have been built into the design of this instrument. For instance, the storage batteries which power the unit are wired to the control panel in such manner that when the lifeboat is afloat the batteries may also be used to operate boat lights and a searchlight, and, by means of a key, to obtain code blinker operation. When the life boat is on deck, the panel provides a means of connecting the storage batteries with the ship's lines to keep them fully charged. Plate voltage is furnished by a motor-alternator.

Two-wave-band operation is available: 600 meters, for emergency calling, and about 50 meters, for general traffic. The maximum range at 600 meters is about 100 miles. The transmitter is rated at 15 watts. There are two tubes in the receiver, and two in the transmitter.

The instrument illustrated in Fig. A is the Model ET 3677 Lifeboat Transmitter-Receiver manufactured by the Radiomarine Corp. of America.

May this month be the time you find the vintage radio of your choice for a fair price.

Jim

WANTED
RCA Equipment Catalog
Red Cover, Hard Bound
–Any Edition–
1948 to 1955
O TESTA
BXO 9064-HS
NEWARK, NJ 07104

OLD INFO

By Brent Dingman

Published about 15 years ago.

All libraries hold annual auctions to update their library (can not have old looking books in a new modern building) stock and use these funds for operations, so be on the lookout. Small community public libraries who are not on the micro-film system are a very good source for both old book and other literature. If you can not locate the service information, try someone who provides these services, the fees are quite reasonable and well worth it, plus you will be able to repair the set, the value will increase because it will be working.

We are aware of the many major texts books available on trouble-shooting, service data general notes, large amount of theory, very technical type literature and the major manufacturer of component guide books such as P. R. Mallory parts encyclopedias. Here is how we rank the best sources for schematics and service information for radios from the years 1900 to 1950.

1. **Any radio either known, unknown, original or kit form 1900-1925 original factory service manual, or if in kit form the how to construction book; if unknown a similar identical circuit. Many circuits are re-design by collectors.**
2. **Old newspaper sections for blue-chip major radios 1900-1925.**
3. **Original factory service manuals for radios 1925-1950.**
4. **All the old radio magazines for radios 1925-1950.. Layouts and reviews.**
5. **Official Radio Service Publications Manuals for radios 1926-1936.**
6. **John F. Riders Radio Troubleshooters Volumes 1-23 1930-1950.**
7. **John F. Riders Televisions Volumes I-12, 1948-1953.**
8. **Supreme Publications Radio and Televisions Volumes 1-R27 1926-1969.**
9. **Howard W. Sams Sams-Photo-Facts late radios and televisions 1947-50.**

NOTE: Sometimes you have to use all sources. Auto radios are included, but the large firms also have seperate books on these and later models.

We hope this will help and enable you to find all the schematics, clear any mis-leading source information. This documentation is a result of designing, making point-to point schematics, researching, appraising, providing services to collectors and years or experience in vintage electronics and space-age communications.

TRY THINKING FOR YOURSELF

An Open Letter To All Serious Hobbyists

- D.H.MOORE

Not too long ago the only proper approach to buying a used car was to walk onto a lot, find a vehicle of your choice, kick the tires a few times and then ask the price.

Today's generation spots a car on the lot, points it out without a thoughtful inspection, and then asks: *"What are the payments?"*

This is a fundamental shift away from individual responsibility to form and act on one's own judgement, at any level. This growing surrender to faceless men and women sitting hundreds of miles away who presume to suggest that their so-called "price-guides" on the value of vintage radios is a valid contribution to the hobby, is another indication of this fundamental shift.

The sudden rash of so-called "price-guides is like a communicable social disease, and the only antidote is, obviously, thinking for yourself to assume full responsibility for your own individual judgements. The basis for any hobby is a sentimental attachment to something that was, and it should be patent to any thinking individual that you cannot place a cash value on sentiment, or accept a stranger's assessment.

If you are fond of RCA and I am fond of Bremer-Tully, it follows that while you would be quite willing to pay what would be to me an unreasonable price for an RCA item, and you would dismiss my offer for a B-T as being equally unreasonable, neither judgement invalidates what we both have in common - *i.e.*, individual interests within a shared enthusiasm for old radios. I respectfully suggest that that is the only true basis of any hobby.

When the artifacts of a hobby become imprisoned in the personal or privately reflected biases of a faceless man or woman, and that imprisonment turns exclusively on price, then obviously we have moved beyond the limits of a collectively shared enthusiasm. Unlike Sears-Roebuck shoes, our compiler of so-called price-guides to the contrary not-with-standing, vintage radios cannot be categorised as Good-Better-Best. Such an assessment is *yours*, and your individual judgement alone. Why surrender it to strangers? If you doubt your ability to form value-judgements, simply remember that it is your personal or individual *feelings* about a given artifact that should guide you, not the arbitrary value assigned by another. Price is not the measure of the enjoyment and pleasure one derives from a hobby.

Have you ever tried putting a price-tag on your wife or children? Wouldn't you say that they hold your individual interest and that your lives together are a collective enthusiasm? Other men have wives and children; and would you accept a stranger's evaluation, in terms of money, of your children or your wife? I think not, yet in a sense that is exactly what you are doing when you unprotestingly accept another's monetary evaluation of those artifacts which are of personal interest to you. Think for yourself, as you must have done when you first entered the hobby.

Comments like the above are published so that you can get as wide of a spectrum as possible of how others feel about how our hobby is doing.

* * *

Antique Radios

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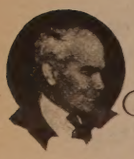
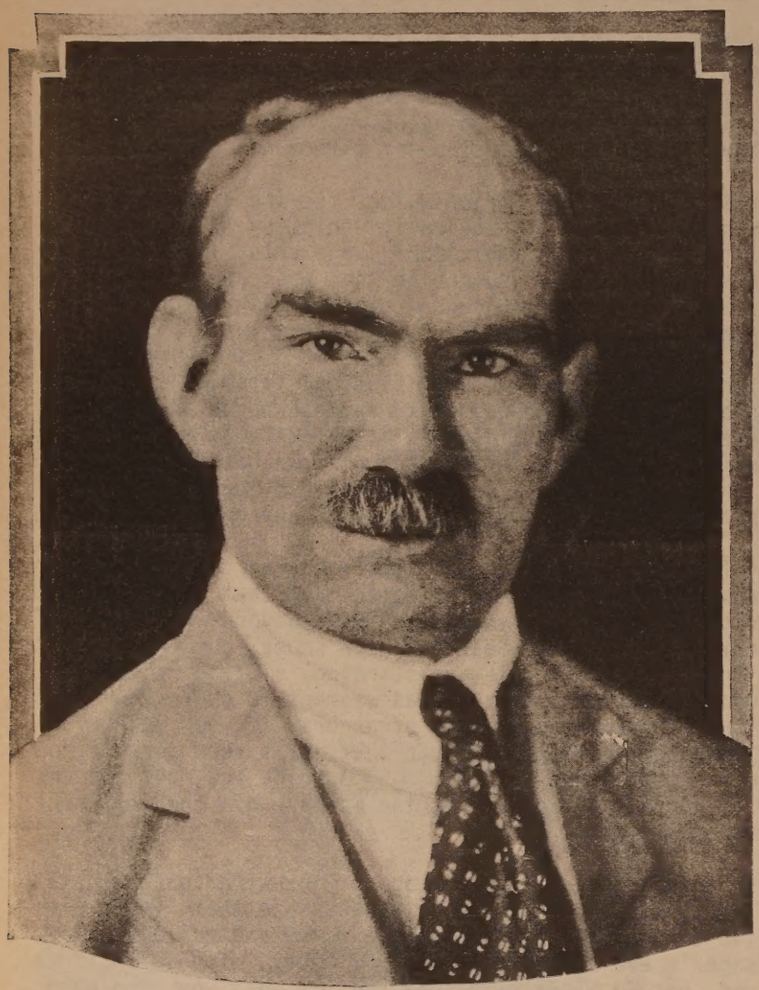
Radio News for October, 1924



The Life and Work of Lee DeForest



DR. LEE DE FOREST, B.S. D.Sc.

LEE DEFOREST was born in Council Bluffs, Iowa, August 26, 1873. He is the elder son of the late Rev. Henry Swift DeForest and Anna Margaret Robbins.

The family to which he belongs is one that could be envied. The American branch is descended from Isaac DeForest, who migrated from his home in Leyden, Holland, to New Amsterdam in 1636. The line of descent is unbroken in America from the first of the clan to the present time.

Old Isaac, according to the "History of Harlem" owned "fifty morgen" bordering on The Kills, opposite Harlem River. In recognition of his ability and work and upon the recommendation of Peter Stuyvesant he was made a Great Burgher. His mantle fell upon the shoulders of his son, David, who was a glazier by trade. David moved to Stratford, Connecticut, where he set up shop and raised six sons, one of whom established the "DeForest Fund," which was later a benefit to the subject of this story in obtaining his diploma at Yale.

Gideon, a grandson of the glazier, followed his father's footsteps and raised four sons, all of whom lived to be more than seventy years of age and took a more or less prominent part in the war for American Independence. Abel, the second son, seems to have reached the highest in this war record, for it is recounted that he held personal acquaintance with George Washington and stood with Andre at his death. During the latter years of the war he was captain on a merchantman. During several trips made by his ship, he had a cabin boy who signed the ship's papers with the name Hull. This Hull was later to make more of the country's history as Commander of "Old Ironsides," during the War of 1812.

This Abel was a great uncle of Rev. Henry Swift DeForest, Lee DeForest's father. He named his first son, Lee, after his own father, Lee DeForest, who was a son of Gideon. Gideon had been a trooper in the cavalry of "Light Horse Harry" Lee during the Revolution and named this son Lee out of admiration for his dashing commander.

CHILDHOOD IN SOUTH

Practically all of DeForest's early childhood was spent with his father in small communities in the then Far West and South. Acquaintance with the conditions which obtained in such communities at the time gives an easy explanation of the solitary habits and inquisitive nature which manifest themselves through his life.

As a minister and a very religious man. Rev. DeForest was taken by his work to Talladega, Alabama, when Lee was six years of age. This was in 1879 and at the height of the Reconstruction period in the South. The Rev. Dr. DeForest moved to the Alabama town to assume the presidency of a Negro college, called Talladega College, which was being operated with funds raised by the Congregational Church.

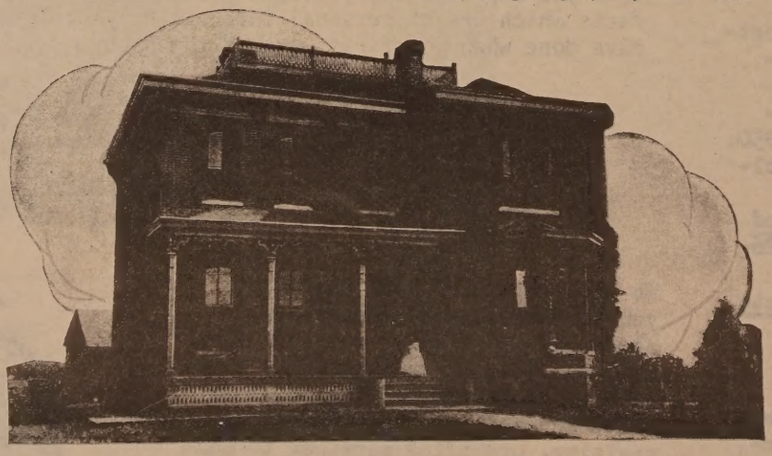
An understanding of the attitude of the Southerners to all the attempts on the part of their late enemy to establish a culture and education among the Negroes must be had if the early formative years of DeForest's childhood are to be understood.

The Southerners, or the "nasty little Rebs" as they are referred to in many of the youthful accounts written by DeForest during his years of schooling among them, looked upon the efforts of the high-minded, idealistic, though slightly impractical teachers and professors, with little more liking than they did upon the carpet-baggers. This may be proved easily by the fact that in none of the accounts of the family during its sojourn at the school contain references to any of the native whites as friends or co-workers. Their social life was restricted almost entirely to intercourse among themselves—the little group of valiant workers whose only remuneration was the hatred of the people of their own class among whom they lived. Such a state of affairs is not at all hard to understand in connection with the DeForests. The account of the American branch of the family is one long tale of pioneers and hard workers—idealists much on the order of the idealized New England Puritan. This was particularly true in the case of Lee's father.

Since all his early childhood and youth was spent in such surroundings it was obvious that there would be a direct effect, caused by them, shown in later years. The immediate effect was, of course, an almost complete isolation from children of his own age and interests. Consequently he had to fall back upon his own ingenuity for play and entertainment. This resulted early in a highly developed skill for handicraft and drawing.

Another contributing factor to this early development was the scarcity of books and other reading matter. Most of his reading consisted of the *Youth's Companion*, "The Patent Office Report" and an "Encyclopaedia of Mechanics." All three of these he read constantly. In note books he kept from his tenth year, there is column after column of building instructions cut from the *Companion* pasted in here and there. It may be inferred from their trend that he shifted his interest chiefly to electricity during his twelfth year.

Each week, the *Companion* carried a special constructor department and each week with religious regularity DeForest attempted to construct the electrical appliance



The house where DeForest spent the greater part of his early childhood.

WE are happy to present, beginning with this issue, a biographical series of one of our greatest living radio authorities, Dr. Lee DeForest, B.S., D.Sc.

Dr. De Forest needs no introduction. He is one of the outstanding figures in radio today and his name is known everywhere. As the inventor of the modern vacuum tube, wireless telephony, both transmitting and receiving, was made possible by him.

Dr. De Forest is one of the pioneers of wireless telegraphy. One of the most important of his inventions is the audion or vacuum tube, as it is called today. He is also responsible for regeneration, making long distance radio reception possible. He is also the inventor of the modern talking motion pictures.

He was awarded a gold medal at the St. Louis Exposition in 1904 for "Work on Wireless"; a medal by the San Francisco Exposition in 1915 for the Radio Telephone; the Cross of the Legion of Honor; Elliot Cresson Medal; Franklin Institute; Medal of the Institute of Radio Engineers and many others.

The articles, during the coming months, will tell you all about his early struggles, his inventions, his trials and his successes. We promise an interesting serial.—Editor.

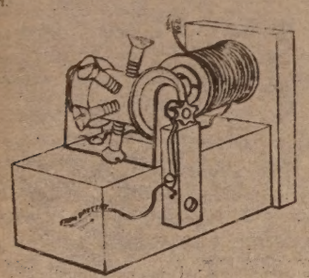
Biography recorded by W. B. Arvin of RADIO NEWS, *under the personal direction of Dr. DeForest. Copyright* 1924 *by E. P. Co.*

AN ELECTRIC MOTOR.

Every electric motor consists of two essential parts a movable magnetic part, called the armature, and ld magnet which is excited by the electric current. eld magnet attracts the armature and causes a , which is transformed, by means of various anical contrivances, into any desirable form. motor embracing these two parts, in their lest forms, is illustrated in the cut.

o the end of a two-by-four-inch base, screw an up- ht piece of half-inch board two and a half inches . To this secure, by means of a two-inch iron ew, the field magnet, which consists of a thread oil, an inch and a half long, which has been wound of number twenty insulated copper wire. The ew should fill the hole in the spool, and it is advis- le to cut away as much of the superfluous wood of e spool as possible, in order that the wire may be se to the iron throughout its whole length.

The armature is made from a similar spool, around nose middle are arranged, at equal distances from ach other, six one-inch iron screws. They should roject about three-quarters of an inch from the wood.



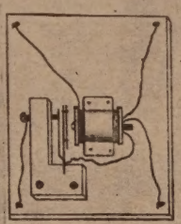
No good for a motor.

AN INDUCTION COIL.

In rheumatism, neuralgia and nervous diseases, electricity often is of great benefit. If it does not effect a cure, it may still render important service in alleviating the sufferings of the patient. The electricity employed is what is termed induced electricity, and, to be effective, must be supplied in a series of rapid shocks.

Instruments which can be used for this purpose are, as a rule, quite expensive; but the amateur may easily construct one for himself. The instrument is but a slight modification of an electric bell, which was described in *The Companion* a few months ago.

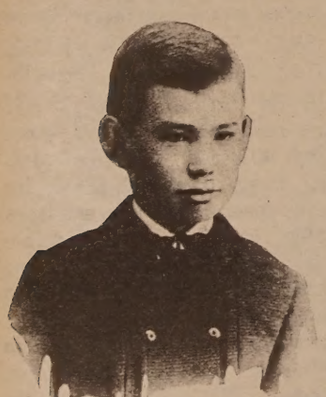
Around a round stick, three-eighths of an inch in diameter, wind two or three thicknesses of paper, sticking them together with flour paste. After they have been dried, remove the hollow paper cylinder, previously cutting it to a length of two and a half inches. In one end of this fasten, by means of glue or sealing-wax, a piece of three-eighths round, soft iron, half an inch long, allowing an eighth of an inch to project. Then attach at each end a button of pasteboard an inch and a quarter in diameter.



On this paper spool wind four layers of silk insulated No. 22 copper wire, connecting the ends as shown in the cut, and as was done in the case of the electric bell. Outside of this coil, and not connected with it, wind a large number of layers of the finest silk-covered copper wire that you can obtain; No. 34 would be the proper size. Fasten the coil, thus wound, to a base, by means of a strap of tin plate. Connect the two ends of the fine wire with two binding-posts.

My induction coil wouldn't give a sensible shock at all

Notes and sketches taken from DeForest's scrap book. He tried to build the apparatus shown. His results are given in his penciled note beneath.



DeForest as he looked at eleven years of age at Talladega, Ala.

shown. They ranged from the simplest magnet to motors and Leclanché cells.

One of the most peculiar traits noticeable in the boy's character is the series of concise notes kept on all his trials with the apparatus he assembled and attempted to make work. With the Leclanché cell these notes tell almost as much as the original article which he followed. The building and making it work covered a period of several months. Living in a small town where there were no modern conveniences and where the chief interest of the shop keepers lay in jeans pants and hickory-cotton shirts it was impossible to obtain carbon for the positive electrode. His first attempt was with coke. Needless to say an electric bell gave no sound when connected to this battery. Then, seeing that another course would have to be followed he proceeded to grind the coke in a home-made pestle and mortar, and bind it together with molasses. The notes state that the combination of this carbon, used in connection with a poor grade of zinc, amalgamated with thermometer mercury, gave "indifferent results." The cell was finally brought to successful operation after a couple of months when Lee and his father made a trip to Chattanooga, Tennessee, and Look-Out Mountain.

While his father was surveying the beauties of the scenery and the battlefields Lee was following slowly behind, insisting on walking in the gutter at the side of the road leading up the mountain side. His father did not notice for some time, but later, after Lee had insisted on falling further and further behind, remonstrated only to find that his son's interest lay not in the fields of history, but in finding carbon stubs thrown on the roadside under the arc lights.

He found several of the carbons and upon his return home finally made the cell and entered in his notes, "Leclanché cell works."

He manifested an extreme interest in all things mechanical and electrical from his earliest age. In later years, his memory remained clearer on such things than on other interests which might, logically, be expected to occupy the mind of a healthy growing American child. As a case in point. Shortly after he was three years old, his father took him to view a demonstration of an early Edison tinfoil phonograph. He looked upon it with awe and asked many questions.

FIRST PHONOGRAPH

At the age of three such an interest (as well as the remarkable retention in memory of the occasion) is for the psychologists to work upon. DeForest remarks that this is possibly one of his earliest if not *the* earliest of his remembrances. The incident took place in Waterloo, Iowa, and while undoubtedly many other incidents of equal or greater interest to a child took place, few if any of them are remembered.

With a large number of children—almost all of them, in fact—an interest in "how it works" is demonstrated in connection with all the strange, new things with which they meet. This interest was strong in DeForest. However, living in a Southern town totally without the modern mechanical conveniences with which we are acquainted, he was not privileged to feed his imagination with the hosts of gyrating monsters which give the modern child so much pleasure. There was likewise a dearth of toys, and none of the mechanical variety. As a result, he fell back on the only possible outlet for an ever busy brain and body.

There are any number of stories and tales of humorous practical jokes and weird pranks which have resulted from the imagination and energy of such children. DeForest seems to have been just such a child.

What was to be of more importance was, probably, a tenacity. To those who hold strongly for heredity, it will at once be said that this trait was a direct inheritance from his pioneering ancestors. Possibly it was, anyway, he had it and a large supply of it.

A point here may be the doggedness with which he maintained an interest in things mechanical in the face of his father's almost constant objections. Being a minister and having devoted his life to the ideals of religion he naturally desired his eldest son to take up his work.

The Rev. Dr. DeForest took no vigorous steps to change the course of his son's studies and interests until his tenth year. After he began, however, the two wills clashed often and long. In the end the son came off victor.

"INVENTING"

One of the first of these clashes came when Lee, as was a sort of custom for rainy days, lay flat on his stomach on the living room floor with a large sheet of paper, pencil, ruler and square "inventing." Upon such occasions he would reproduce with great detail the mechanical construction of steam hammers, guillotines and other devices which he had read about in the "Mechanical Encyclopaedia." Sometimes he would not follow the designs shown, at others he would branch into a line of endeavor for himself. It was upon one of these essays that he invented a perpetual motion. It was very simple, he thought. Consisting of electro-magnets, it worked by having metallic shields which alternately cut off and released the power of the lines of force. The notes on the device are enlightening. One sentence says ". . . it is strange that after the years of toil used up by geniuses of the past in attempts to construct a perpetual motion that I, a comparative youth, should succeed where they failed. . . . ! !" It was not until he had read deeper that he learned of the magnetic law which obviously rendered this scheme inoperative.

(To be continued.)

The
VINTAGE RADIO FOUNDATION

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Hayward - California
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TRADE: I HAVE A NICE A-K 10 "breadboard" with M horn speaker for trade for a Collins bakelite panel amateur transmitter. Also need schematic for a Collins 32G transmitter. Parker, W1YG, 87 Cove Road, Lyme, CT 06371.

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FOR SALE — ATWATER KENT

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ATWATER KENT 10B BREADBOARD. Original, solid, complete. With five good UX tubes. $795.00. Paul C. Crum, W9LC, 6272 Cicero Avenue, Chicago, IL 60646. (312) 282-3033.

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FOR SALE — SCHEMATICS, BOOKS, ETC.

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FOR SALE: COMPLETE SET OF POPULAR ELECTRONICS MAGAZINES 1955-79. QST 1950-60 IN BINDERS (EXCEPT 55, 59). MIKE GRIMES, K5MLG, 3805 APPOMATTOX, PLANO, TX 75023

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****

THIS SERVICE MANUAL supplement contains a list of electrical values, resistors and condenser, coils and transformers in all Atwater Kent radios 1924-1933 inclusive $3.50 P.P. 24 pages. ****** THIS BULLETIN contains the complete list of Philco black bakelite "by pass" condensers, new universal types, discontinued types with replacements and condensers with internal resistors $1.50 P.P. — Lee Williams, 2015B 228TH S.E. Bothell, WA 98021.

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FOR SALE— RIDERS MANUALS, ABRIDGED (VOL. 1-5) AND VOL. 6 THROUGH 16 $275.00. VOL. 9, 10, 14 $20.00 EACH. ANTIQUE RADIO SERVICE, O. H. McDONALD, 2535 WEDGLEA #124, DALLAS, TX 75211.

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SCHEMATIC $1.25 each, give make and model number. New manuals of old tubes, substitution guide, characteristic, VT numbers and pin out guide, Tubes, books, and parts. Send SASE to Housel, 1816 S.W. 12, lincoln, NE 68522.

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ELECTRONIC ORGAN SCHEMATICS AND MANUALS. SASE FOR PRICE QUOTES. MANY MAKES AND MODELS. ALTON H. BOWMAN, 4172 EAST AVENUE, RD 2, CANANDAIGUA, NY 14424.

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FREE INFORMATION ON ANTIQUE RADIOS, Robert Johnson, 1895 Curtner, Apt. #2, San Jose, CA 95124.

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TUBE CHECKER (OLD, NEW TUBES) POCKET SIZE, unused with instruction manual. quanity available $6.50; Old crystal radio. kits, Instructions, all parts included, rare, new supply available, $16.00 each; all above postpaid; large electronics, parts catalog $1.00; D. Testa, Box 9064-HS, Newark, NJ 07104.

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SALE: WD-11 ADAPTERS, ISOLATION transformers, test equipment, auto radios, new old stock vibrators, audio amplifiers, 5,000 new tubes, power transformers, books on radio subjects plus too many items to mention. Send SASE for quote on your needs. James Fred, R1, Box 41, Cutler, IN 46920. Phone (317) 268-2214.

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FOR SALE OR TRADE: THE GENERAL RADIO EXPERIMENTERS" CONTAINS INFORMATION ON EARLY GENERAL RADIO RADIO EQUIPMENT, ETC., INCLUDING PHOTOS. VOL. 1, (1926-27) VOL. 2, (1927-28) COMPLETE EACH SET $25; VOL. 3, (1928 1st 6 MO.) $15; AK SEPT. 1924 CATALOG, $15; AK INSTRUCTION BOOK, VOL. 4, 1927, $20; AK COLOR FLYER, APPROX. 14" X 10", ADVERTISING MODEL 42 AND E SPEAKERS. $10; RIDERS 1-5 ABRIDGED AND 6 THRU 14, $150; ALL MATERIAL ORIGINAL. RCA RADIOLA 26 WITH SEPARATE BATTERY BOX, WORKS, AK MODELS 21 AND 49, WORKS, ACME DOUBLE CONE SPEAKER, GOOD COILS, $35; RADIOLA 16 CABINET $5; RADIOLA 17 CABINET $10; RADIOLA GRAND CABINET AND SOME PARTS, $100; SHIPPING EXTRA. RAYMOND THOMPSON, 7422 CHERRY TREE DRIVE, FULTON, MD 20759.

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PERFECT FOR FIXING OLD RADIOS and TVs — 2 B and K scopes model 1461 - single trace $170.00. Model 1470 - dual trace $190.00 with instructions - shipping extra. Capacitor resistor bridge and signal tracer $50.00. Sprague Kwik-Test for capacitors $35.00. First come first served. Maurer TV, 29 S. 4th Street, Lebanon, PA 17042. Some N.O.S. tubes available if you send SASE.

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FOR SALE AS LOT 100 plus radios, pickup only, old Conelrad radio tube type, Crosley Tridyne battery set, Hallicrafter S-40B, S38, SW500 F.C., old Majestic 90 Zenith Transoceanic tube type, tombstone radios RCA GE etc., old Meissner Radio Analyst, old tube testers for 01A, 45, 71, etc., old Steanite radios, old voltmeters, old tubes NOS and used 01As, 45s and 71s. old parts, old power supplys for battery radios, SELL SEPARATE 1923 Brunswick radio phonograph with diamond needle and 1/2 in. thick records large F.C. 95% of radios in playing condition. Phone (816) 259-4359 after 5 p.m. CST.

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FOR SALE: CONAR SCOPE model 250, excellent condition; Motorola-55X11A AM radio; National 1945 multi- navy receiver RAO-7, Hewett Packard 400E AC voltmeter, J-38 keyer, Knight model KG 685 color pattern generator; different types of plug in relays, CB and old unusual plug in crystals, Midland CB base station model 13-879B with large amplified desk microphone; Medical Cardi-all by Beck -Lee in wooden case; old metal Connecticut telephone, 2 Jensen osmium tip phono needles; good used tubes- 75 cents each plus shipping. Joseph Zambri, R D 4, Box 216, Towanda, PA 18848. (717) 265-4825.

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THE VINTAGE RADIO FOUNDATION - - - are you a member? - if not, get full information from Jim Lanphear, 4062 Oak Point Ct., Hayward, CA — 94542.

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FOR SALE: RADIO RELATED TIE CLASPS

& lapel pins, send a L.S.A.S.E., I also buy old wooden clocks; Michael S. Sabodish, Sr., 11 - A Matawan Avenue, Cliffwood, NJ 07721.

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NATIONAL HRO. Older pin-type tubes. Rack mount. With six coil sets (not continuous). Fair shape. $95; RME 69, rack mount (no cabinet) fair/good $95; Two meter composite AM transceiver. Works! $15; One WE 101D tube. Good filament. $20.- Paul C. Crum, W9LC, 6272 N. Cicero Avenue, Chicago, IL 60646. (312) 282-3033.

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FOR SALE: QST, 1917-1930; MAGNAVOX AC 3C AMP, $250; GENERAL ELECTRIC E-61 ROUNDTOP, $150; JACKSON 660 SIGNAL ANALYSER, $15; A-TRONIX CODE READER, $25; REPRO DeFOREST O-90 CURVED SCALE PLATES, $5; WD-11, NIB, $40; THORDARSON SPARK TRANSFORMER, $150; VT-1 or VT-2, $25 EACH; RADIOLA AR1300 and AA1400, PREDECESOR TO RADIOLA V, $300; 23 TUBE SCOTT CONSOLE, $600; WESTERN ELECTRIC 24A, 25A and 30A RELAYS, $20 EACH. SASE FOR LIST. JIM COLLINGS, 12005 VICTORIA PL., OKLAHOMA CITY, OK 73120. (405) 755-4139.

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FOR SALE: AIRLINE MIDGET BAKELITE, model 7???, very good, $25. Philco 49-603, very good, opens like a book, $25. Heathkit Mohican, mint, $75. Admiral Bakelite, 45-J15, BC/SW, very good, $25. JUNKERS: RCA Victor 45X1, good cabinet, FOS page 155. Crosley 56-PB, AC/Batt. Philco Transitone 52-540. All $5. Add shipping. WANTED: Mint condition 24 hour clock for Hammarlund HQ-100A with installation instructions. J. S. Lowe, 3025 Harpers Ferry Road, Sharpsburg, MD 21782.

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FOR SALE: RCA VICTOR portable AM radio #BP-10. 4 tube superhet, unusual about 1/4 the size of a shoe box, it is oblong, handle on side, lid opens, chrome grill frontpiece! Nice! Best offer. Like new. TUBE CHECKER (old new tubes), pocket size, unused with instruction manual. quanity available. $6.50 each. P.Pd.; — Military technical manuals, complete service with schematics for receivers. R-392/URR, R-390A/URR $15 each P.Pd.; — Other T/M's available, low cost, send wants; — Dynamotor DM-34 #5; — Old crystal radio kits. Instructions, parts included. (quanity available) $11. each P.Pd. (10 for $90). D. Testa, P. O. Box 9064-HS, Newark, NJ 07104.

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HEATHKIT HW-100, SHIP COD. M. G. Clute, K5DXV, Route 1 Box 1, Jewett, TX 75846.

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Ad deadline for the June, July and August edition is the 22th of May.

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RME 69 EARLY RECEIVER. rack mount, generally good, weak on 160 meter band $95; loose coupler, unusual replica $35; crystal grinding outfit $15; very early RCA/GE/Acme transmitter power supply transformer and choke (for Vu-202 & such) iron case $45; Polaroids $1.00@. All plus UPS. Paul C. Crum, W9LC, 6272 N. Cicero Avenue, Chicago, IL 60646. (312) 282-3033.

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MANY THOUSANDS OF OLD TUBES. LARGE 80, 81, 82, 83 BOXES OF WESTERN ELECTRICS RECEIVING AND TRANSMITTING TUBES, PEANUT TUBES, METAL TUBES, E. H. SCOTT TUBES, BOXES OF LOCTALS AND OCTALS. IV TUBES. ALSO FIRST EDITION RIDERS SUBSTITUTION GUIDE BOOK. ONLY SELLING ALL U PICK UP. TUNGAR BULBS. TO: BASIL ABBOTT, #4 BUNKER HILL, RICHARDSON, TX 75080.

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FOR SALE: to receive America's best list of radios, tvs, mags, etc.. send $1.50 for current list to: Jim Clark Enterprises, Dept.,HS, 1292 Starboard, Okemos, MI 48864.

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SEND LARGE SASE for list of radios., Donald Juleen, 6252 Ledge Road, Sturgeon Bay, WI 54235.

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FOR SALE — RADIOLA

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VICTOR (ALHAMBRA) lowboy, Orthophonic Victrola in right side, working excellent, Radiola 20 battery radio in left side, tubes and speaker have continuity, did not apply power to battery radio, physical appearance is excellent. ASking $300 pluys shipping costs. Phil Guinan, 106 Page Road, RFD 7, Litchfield, NH 03051. (603) 889-6213.

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****

I am planning to issue a ten inch Black labeled Victor record auction closing in December. The records will range in age from 1905 through 1955 approximately. Anyone wanting a copy of this list please send me your name and address on a postcard and ask for list BL2. Anton Johannes, R. D. #3, Box 253, Pine Bush, NY 12566.

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FOR SALE — PHILCO

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PHILCO 95TH ANNIVERSARY limited edition cathedral radio, AM/FM transistor chassis, look a like to Philco model 90 - 1932- collector's item, only $59.95 plus $5.00 shipping. Maurer TV, 29 South 4th Street, Lebanon, PA 17042.

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SCOTT ALLWAVE 12 IN NAPIER CONSOLE CABINET, GOOD UNRESTORED CONDITION, CABINET NEEDS MINOR VENEER REPAIR, TUBE COVERS AND COIL CANS NEED RE-CHROMED. TRADE FOR BEST OFFER OF 1940'S JUKEBOXES AND/OR PRE 1941 SLOT MACHINES. ALVIN HECKARD, RD1, BOX 88, LEWISTOWN, PA 17044.

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SPLITDORF JC S 102 308 radio in an Adler Royal cabinet, 44" high 38" wide, walnut with two large doors in front, extra set of tubes $200.00. (201) 228-0435. J. Baerenrodt, 5 Pine Road, Roseland, NJ 07068.

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FOR SALE — TUBES, PARTS, ETC.

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TUBES FOR SALE: sub-minatures; 1AD4, 1AH4, 1AJ4, CK636, CK637, CK644. Acorn type; Eimac CIM 15E, 955, 957, 9004. MINATURE; 426A, 9002, 9003. NUVISTOR; 2CW4. CRT; 2BP1, 3BP1. TX tubes; VT4C, 10Y/VT25, WE CW 5D21, HY40Z, WE 393A, CRP 705A/VT255, JAN 715B, 807, CQN 836/VT236, CKR837, CUE838, 866A, 5514, GL8020. MISC.; 2X2A, 3B24, 3B26, 2K25 KLYSTRON, RK60, CRP72, HY114B, HY615, 717A, 885, 1625, 1626, 1642, 2050, 6080WA, 6550, 7193, MOST ARE NEW. (701) 282-6379, Ernie Jury, RR1, Box 373, Harwood, ND 58042.

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THORDARSON FLYBACK YOKES $15. POSTPAID 2 - 167, Don Aldred, 39 East 8th Street, Jacksonville, FL 32206.

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TUBES ONE-V 6.00, 6V5/6G5-6E5 12.00,6L6M 17.00, 6L6 GC 10.00, 6 and 12 V 3 and 4 prong vibrators 12.50 all ppd. H. f. Brammell, 204 E. Maple, Americus, KS 66835.

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FOR SALE: NEW IN ORIGINAL BOX, 215-A WESTINGHOUSE $30.00. ONE BRASSBASE UV-201-A TUBE EX. CONDITION POST PAID. $20.00 NO TIP USED. CLEON BOOTHE, BOX 235, COHOCTON, NY 14826.

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TELEVISIONS

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RCA TV Model 8PT7010 in red metal case in working condition. Included second set same model for parts. Make offer. John Schellkopf, 1344 Goucher Street, Pacific Palisades, CA 90272.

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FOR SALE — ZENITH

****

THE CABINET IS IN MINT CONDITION and the radio plays. It is a Zenith 12 tube superhetrodyne with a tuning range 540-18400 kyc., chassis 1204-A. Marshall T. Bond, 8718 Linkfair lane, Houston, TX 77025. (713) 668-0029.

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FOR SALE: 1940'S VINTAGE ZENITH CONSOLE radio and phonograph. Cabinet is in excellent condition. $250.00 — Call (815) 838-5398. 5 p.m. to 10 p.m. c.s.t. Dick Stauss, Rt. 1 Box 399, Lockport, IL 60441.

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INTERESTED IN A DISPLAY AD?

For instance, get three months exposure and a big full page ad in the June, July and August edition for only $25.00. Prices for other sizes, please see page 8.

WANTED — ATWATER KENT

FOR MODEL 812 receiver, original factory service data, any other information, power transformer, Tune-A-Lite lamp. B. T. Wooters, W5KSO, 8303 E. Mansfield Avenue, Denver, CO 80237. (303) 770-5314.

WANTED: ATWATER KENT CATHEDRALS, ESPECIALLY MODELS 90, 92, 228, 246, AND 567. JIM COLLINGS, 12005 VICTORIA PL., OKLAHOMA CITY, OK 73120.

WANTED — BRUNSWICK

ONE PUSH BUTTON for a Brunswick radio. Chassis M-27-6 serial # 1237. It is brown bakelite, 7/16" in. diameter, 1" long. George C. Edwards, Route 3, Box 956, Henderson, NC 27536.

WANTED — CRYSTAL SETS

BUYING HOME MADE OR MFG. CRYSTAL SETS OR ITEMS. Tom Hartley, P. O. Box 29284, Parma, OH 44129

HOMEBREW CRYSTAL SET. Dial type mounted on nice wooden cabinet. Vernon Kostohryz, 600 Lakeside 3A, Brownsville, TX 78520. (512) 541-5692.

WANTED — EDISON

WANTED FOR EDISON STANDARD phono— model B. 1.) mainspring 2.) decals-trademark and "Edison, 3.) cabinet lid 4.) A. K. breadboard in excellent condition. Carl Hickey, 27404 N. Highway 1, Fort Bragg, CA 95437. (707) 964-0505.

WANTED — GENERAL RADIO

ALWAYS INTERESTED in older General Radio test equipment and components. Frederick G. Suffield, 817 West Fir, SEQUIM, WA 98382. (206) 683-6482.

WANTED — GENERAL

DIAL AND DIAL DRIVE FOR A PHILCO 16 CODE 121 OR JUNKER CHASSIS FOR SAME; UTAH DRIVER FOR THE BUILT-IN HORN ON A FRESHMAN MASTERPIECE. THOMAS BISEL, 2266 HALYARD COURT, SAINT LOUIS, MO 63129.

GENERAL RADIO DIAL KNOBS WITH METAL SKIRTS, WESTON SURFACE MOUNT METERS, AND ANY PRE-WWII AMATEUR RADIO EQUIPMENT. PARKER, 87 COVE ROAD, LYME, CT 06371. TEL. (203) 434-7783.

ORIGINAL BOXES that the following radios were packaged in when new: Motorola 65L11 anbd 65L12 (1942-1946), RCA "Globe Trotter" 66BX and 8bX6 (1946-1948) and Mitchell "Lullaby bed lamp radio" 1250 and 1251 (1948). Write to: Mike Hanke, 1036 South 15th Avenue, Wausau, WI 54401.

L'TATRO, WILCOX-GAY, KINGSTON, MIDLAND (Decorah, IA made), KAROLA, PHILLIPS (made in Kokomo, IN) and other lesser known brands. James A. Fred. R 1, Box 41, Cutler, IN 46920.

RIDER'S TROUBLESHOOTER'S manual Vol. I, 1929; AK model R horn; RCA Radiolas VII; VIIB; special; parts for Zaney Gill cathedral; parts for Sparton model 15; Raymond Thompson, 7422 Cherry Tree Drive, Fulton, MD 20759.

WANT TO BUY HEADBOARD RADIO, 1949 - 1950. Will pay $20.00. John Smith, 3824 Dutch Village Road, Apt. 52, Halifax, NS Canada B3L 4G2.

WANTED: 2 - 216A VACUUM TUBES, Continuity check on filament NG. Check with 6 volts 1.3 amps. for filament glow. WANTED: Gillfillan or Garod Neutrodyne receiver. Uses UV199's has meter on panel for A and B voltage. T. Drogoski, 507 Coal Valley Road, Jefferson Boro, PA 15025.

WANTED: CHASSIS FOR CROSLEY Buddy Boy model 58 and speaker, chassis and power supply for AK model 53, part for AK "breadboard" where 3 tubes sit on. Jerome Schliepp, 831 Berlin Road, Ripon, WI 54971. (414) 748-2471.

WANTED: RIDERS 1929 SERVICE MANUAL, VOL. 1; PARTS FOR SPARTON MODEL 15; AK MODEL R HORN; RCA MODEL VII, VIIB; PARTS FOR ZANEY GILL; RAYMOND THOMPSON, 7422 CHERRY TREE DRIVE, FULTON, MD 20759.

WANTED: EARLY CANADIAN RADIO MAGAZINES SUCH AS CANADIAN WIRELESS, RADIO INFORMER AND "RADIO". QST FOR 1918-19 ALL WAVE RADIO, SHORT WAVE CRAFT 1931, RADIO DESIGN AND RADIO BROADCAST 1928. RCA VICTOR R35 WITH CABINET. AUDIO TRANSFORMER FOR RCA R15 OR RCA RADIOLA 48. RADIOLA 20 WITH GOOD AUDIOS. SCREEN GRID TYPE BROWNING DRAKE OR FACTORY BUILT SINGLE CONTROL MODEL. SPARTON TRF MODEL 5-15 1925. COMPLETE CHASSIS WITH DIAL OR JUST GOOD DIAL SCALE FOR RCA 15 OR RCA RADIOLA 48. JONES 7 PIN PLUG WITH OR WITHOUT CABLE. CRYSTAL DETECTOR FOR RADIOLA V AND SE1420. RADIOLA 20 CHASSIS AND RADIOLA 16 CHASSIS BOTH WITH VERY GOOD AUDIO TRANSFORMERS. RON A. MCNEILL. P. O. BOX 472, Yorkton, SASK CANADA, S3N 2W4.

WANTED WANTED 50A1 TUBE. 6CD7 EYE TUBE. OWNERS AND SET UP FOR THE FOLLOWING. TUBE TESTERS WESTON 682. 676. JEWELL 538. PHILCO 050. MOSS 247. B&K CATHODE TUBE REJUVENATOR MODEL 200. RCA 115-A COLOR PIX TUBE TESTER. RCA WV 87-B VTVM. HICKOK 203 VTVM. HICKOK 260 TV PATTERN GENERATOR. SX42 HALLICRAFTER SW REC. XEROX COPIES FOR THE ABOVE OK. KRANTZ, 100 OSAGE AVENUE, SOMERDALE, NJ 08083.

BUYING SCOTT AND McMURDO SILVER. WILL MATCH OR TOP ANY OFFER. JAMES E. BRAGG, 30881 ALISO CANYON ROAD, ACTON, CA 93550. (805) 269-0528.

DIAMOND "T" RADIO, dead horns, speakers, fixer upper sets, 32 volt items, parts for Bremer Tully Counterphase, Thorola, Stewart Warner 300, will swap repairs or ? — Jim Barratt, 26313 SE Leonard Road, Camas, WA 98607.

FRONT DOOR of AK Kiel table. Also want 16mm sound print of 3 stooges, "A Plumbing We Will Go." Jim Baker, 704 Medway Road, Hagerstown, MD 21740-4130.

WANTED — HALLICRAFTERS

FOR SX-15 SKY CHALLENGER — original owner/ operator manual, any service information. B. T. Wooters, W5KSO, 8303 E. Mansfield Avenue, Denver, CO 80237. (303) 770-5314.

WANTED — HEADPHONES

NONWORKING OR WORKING HEADPHONES: Advance, Ajax, Allied, Aristocrat, BASCO, Bel-Canto, Benwood-Linze, Berkey, Berstan, Big Three, Blue Streak, Brandes (early model that has "Superior" stamped on wide nickeled band), Branston, Brown, Churry, Clarion, Davis (bakelite), DTW, DECO, Dymac, Eastern, Eisman, Electro Importing, Essex, Ericson, Everytone, Excello, Federal 52-W, Friedlander- Koppler, Gold Stripe, Gold Tone, Gundlach- Manhatten, Hart- Hegeman, Hartford, Harvey-Wells, Haynes- Griffin, Huball, International, Interocean, IWB, Jolley, Keystone, Kilbourne Clark, Kodel, Lark, Litewate, Magnus, Metro, MacKay, Majestic, Miller, More Tone, Murdock Special, Music Master, National, Navy Ordance Supply, Ohio, Orator, Penn Headset, Perfectone, Ports, Rasco, Radiocraft, Radiotive, Randolph, Red Head, Royal, Seco, Sears, Spartan, Smelzer, Splitdorf, Sraco, Steinmetz, Sunlight, TBM, Teleradio, Tempest, Trego, Victor, Welbilt, White Beauty, Wireless Specialty, Ben Wolfe. .... Vernon Kostohryz, 600 Lakeside 3A, Brownsville, TX 78520. (512) 541-5692.

WANTED — LEUTZ

WANTED FOR LEUTZ MODEL "C" super-het.: 2 Weston No. 301 voltmeter 0 - 10 volts DC. 2 Weston no. 301 ammeter 0-5 amps. DC. 4 General Radio type 231 A audio transformer. 6 special Leutz I.F. transformers. 1 special E.I.S. (Leutz) oscillator coil. 1 special E.I.S. (Leutz) R.F. coupler coil. John A. Rawlins, Jr., 1920 Stephenson Drive, Mesquite, TX 75149. (214) 285-2313.

WANTED — LITERATURE

ORIGINAL "OWNERS MANUALS" for 1940's RCA portable radio 8BX6 and 66BX and Motorola portable 65L11 and 65L12. Also original cartons they came in when new! Mike Hanke, 1036 So. 15th Avenue, Wausau, WI 54401.

SERVICE MANUAL FOR NATIONAL NC-7" TV RECEIVERS. FRED EMERSON, 627 ILLINOIS AVENUE, ELGIN, IL 60120.

SCHEMATIC FISHER AMP. STEREO MODEL400 SERIAL 34732 S. ALL TUBE AND HAS FOUR 7868 IN OUTPUT. J. MC DADE, 204 E. JOPPA ROAD, # 214, TOWSON, MD 21204.

SAM'S FOLDERS No's. - 55-5, 60-1, 61-16, 80-4, 81-3, 82-1 and 104-2, FRED EMERSON, 627 ILLINOIS AVENUE, ELGIN, IL 60120

INSTRUCTION MANUAL FOR EICO MODEL 950 A RC BRIDGE CONDENSER CHECKER.

H. F. BRAMMELL, 24 E. MAPLE, AMERICUS, KS 66835.

EVERY DAY MECHANICS, VOL. I, NO. 4, MAY 1916 OR A COPY OF "HOW TO BUILD A TRANS- ATLANTIC WIRELESS RECEIVING SET. K. A. LADD, 5240 44TH AVE. S., MPLS., MN 55417. (612) 722-6786.

LAFAYETTE RADIO CATALOGS - 1960 THRU 1968, PLEASE STATE CONDITION AND PRICE. MR. MICHAEL S. SABODISH, SR., 11 - A MATAWAN AVENUE, CLIFFWOOD, NEW JERSEY 07721.

WANTED: OPERATING MANUAL and tube data sheets for Jackson Dynamic tube tester model 636. Zerox copy O.K. Frank Hoffert, 19605 Chardon Road, Cleveland, OH 44117.

WANTED - INFORMATION AND SCHEMATIC for Blaupunkt Sultan 3D radio. Model number unknown, 5 tube AM/ FM/ SW. Write Ray Carifio, N4LTS, 6014 SW 33rd Street, Miami, FL 33155

WANTED: LIBRARY BOUND volumes of QST, CQ, 73 PRE 1960. ALSO GLOBE SCOUT (WRL), MIKE GRIMES, K5MLG, 3805 APPOMATTOX CIRCLE, PLANO, TX 75023.

WANTED: SCHEMATIC AND INFO on Eico ST 70 amplifier. Gordon Wilson, 11108 - 50 Avenue, Edmonton, Alberta, Canada T6H 0H9.

WANTED: INSTRUCTIONS FOR PACO MODEL 25 IN-CIRCUIT CAPACITOR TESTER RCA WR-50A SIGNAL GENERATOR CRYSTALINER (CRYSTAL MODULES) GENERATOR, GLENN HARTMAN, 5545 DEEP HOLLOW, FAYETTEVILLE, NC 28311.

WANTED — NATIONAL

FOR NATIONAL HRO-50T receiver, original owner/ operator manual, CXO 100/1000 kc. xtal. calib., NBFM-50 adapter, SOJ-3 adapter, coil sets G, H, J, AB, AC. B. T. Wooters, W5KSO, 8303 E. Mansfield Avenue, Denver, CO 80237. (303) 770-5314.

WANTED DEAD OR ALIVE FOR RESTORATION OF NATIONAL HRO COMMUNICATIONS RADIO. OLDER MODEL PREFERRED USING EITHER 57/58 OR 6C6/6D6 TUBES. WILL PAY GOOD PRICE FOR COMPLETE UNITS WITH POWER SUPPLY AND COILS. DAVE MEDLEY, KI6QE, 1450 BAYVIEW HEIGHTS DRIVE, LOS OSOS, CA 93402.

WANTED — PARTS, TUBES, ETC.

CHANNEL SELECTOR KNOB. CHANNEL INDICATOR BEZEL FOR PHILCO PREDICTA. — Joe Cunningham, 917 Lunt Avenue, Schaumburg, IL 60193.

CHROME TUBE CAP FOR NEUTROWOUND BATTERY RADIO. RUSSELL SCHOEN, E. 7340 NIETZKE ROAD, CLINTONVILLE, WI 54929. (715) 823-6744.

NATIONAL TYPE PSK PRESELECTOR FOR NATIONAL FB7-A RCVR. SW3, FB7 COILS. NATIONAL VELVET-B POWER SUPPLY. PAT STEWART, W7GVC, 1404 RUTH AVENUE, WALLA WALLA, WA 99362.

TUBE SOCKETS— 3-4-5-6 PRONG COMPOSITE. 2-5-6-7 PRONG COMPOSITE. 1-5-7 PRONG COMPOSITE. 4-7-7 PRONG COMPOSITE. JACK S. WALLACE, 5516 GILBOW AVENUE, RIVER OAKS, TX 76114. (817) 732-5189.

COOPER-HEWITT MERCURY vapor bulb. TCBA, RR6, Box 181, Glens Falls, NY 12801

FIXED DETECTOR GRID RESISTANCE FOR ATWATER KENT MODEL 32 AK PART # 8190, ALSO GRID LEAK RESISTOR, AK PART #8190. ALSO FOUND IN MODELS 20c- 30- 33- 35. C. Hoffman, 824 Gordon Street, Allentown, PA 18102. Phone (215) 434-2536.

REPLACEMENT CONE MATERIAL FOR STROMBERG- CARLSON 601-TRF COMPANION CONE SPEAKER. LAWRENCE DE ROSE, 12 WILLS AVENUE, R.D.#1, STANHOPE, NJ 07874.

MACHINES SCREWS TO HOLD PANEL TO CABINET, RADIOLA III AND IIIA, I NEED TWO DOZEN. ERNEST HECKLER, 1314 N. SPARKMAN, HARTSELLE, AL 35640.

WANTED — BATTERY RADIO CHASSIS AND/OR ANY INFORMATION ON BRUNSWICK RADIOLA PHONOGRAPH, MODEL BR100, PATENT 1923 — DICK ROZNOVSKY, BOX 480, RICHFIELD, OH 44286.

WANTED: CABINET & AUDIO TRANSFORMERS FOR GREBE CR9, ARTHUR HARRISON, 501 ARBOR DRIVE, COLUMBIA, MO 65201. (314) 474-8729.

DIAL TUNING KNOB AND RESET LOCK SCREW FOR A WARDS 62501 TABLE MODEL RADIO, RIDER 10 - 22, H. F. BRAMMELL, 24 E. MAPLE, AMERICUS, KS 66835.

ZENITH DETECTOR COIL NO. S-8436 USED IN CH, 10A1, 10A2, 10B1, 10B2. ATWATER KENT MODEL 60 A.F. TRANSFORMER ASSEMBLY. L49B BALLAST TUBE. 45 RPM SPINDLE FOR B5R C129 CHANGER EV/GAME 436. CABINET FOR PILOT TV 37. 3KP4 CRT. ELECTRONICS MEASUREMENT CORPORATION. MODEL 502 SIGNAL GENERATOR, ASSEMBLY MANUAL OR SCHEMATIC. AUDIO INPUT XFMRS FOR SINGLE PLATE TO P-P GRIDS. ANY JUNKBOX PARTS, LITERATURE. ANY EARLY TWO AND THREE PIECE CAR RADIOS, UNITED MOTORS, B.O.P., ETC. ANY OTHER FACTORY CAR RADIOS FROM 30'S - 40'S. ANY SIGNAL SEEKING TYPE CAR RADIOS, MUST HAVE KNOBS. CAR RADIO KNOBS. — ALVIN HECKARD, RD1, BOX 83, LEWISTOWN, PA 17044.

EARLY OR UNUSUAL TUBES, tube cans, cartons also early light bulbs pre 1900. Please describe with prices wanted to: Bruce Harbeck, 13408 Westwood Lane, Omaha, NE 68144. (402) 333-9013.

HALLDORSON 3 to 1 audio transformer, copper casing. hard rubber panel 10 x 11 x 1/4. Gordon Wilson, 11108 - 50 Avenue, Edmonton, Alberta, Canada, T6H 0H9.

DETECTOR and AUDIO PORTION of GREBE CR2. Also need cabinet for same. NEED FRONT PANEL FOR SCOTT Phantom DELUXE. Larry Steeno, 2728 42nd Street, Two Rivers, WI 54221. (414) 794-7320.

MARCONIPHONE VIII cabinet, also Marconiphone VI chassis, or complete radios cash, or generous trade. Gordon Wilson, 11108 - 50 Avenue, Edmonton, Alberta, Canada, T6H 0H9.

WANTED: EMPTY CABINET for a Philco model 20 cathedral radio. I already have the radio and speaker. Must be in good condition. Joe Beach, 6515 Sunset, Garden City, MI 48135.

WANTED— CABINET AND PARTS FOR A FEDERAL 61. Mike Kibler, 300 Speiter #39, Danville, IL 61832. (217) 267-3703.

WESTERN ELECTRIC TYPE 216A vacuum tube and VT25 or 25A tubes. The 216A must be check in a circuit. Tod Drogoski, 507 Coal Valley Road, Clairton, PA 15025.

TUBES: EARLY UV-217, type CA pliotron, DeForest DV-1 and DV-6, adapter for DeForest type T audion to fit candelbra socket. Parts: rheostat assembly and knob for Tuska 224 rcvr.; case w/hardware for Radiola balanced amplifier. B. T. Wooters, W5KSO, 8303 E. Mansfield Avenue, Denver, CO 80237, (303) 770-5314.

WANTED — PHILCO

WANTED: ANY OF THE 5 TUBE, two knob Philco Transitones — models: PT26, 28, 36; PT33, 41, 61; PT43, 55, or 69. Fred Geer, 6042 Brookridge Road, Jacksonville, FL 32210. (904) 771-7828.

PHILCO MODEL 90B, working or not. Original speaker from Philco model 20— must be in good shape. Thomas Abell, 1022 S. Edison Ave., South Bend, IN 46619. Phone (219) 234-8405.

WANTED — PLASTICS

WANTED: CATALIN RADIOS. All makes: FADA, OSWALD, EMERSON, MOTOROLA, etc. Top prices paid. R. Wayne Oliver, 355 Highwood Avenue, Leonia, NJ 07605. (201) 944-0777.

WANTED — RADIOLA

PHOTO

LOOP AERIAL FOR PORTABLE RADIOLA MODEL 24 - PAGE 112 OF VINTAGE RADIO. Albert Warren, Box 279, Church Street, Waverly, PA 18471. Phone (717) 587-2405.

WANTED — SCOTT

WANTED: EH SCOTT, SCOTT transformer or World's Record radios, sometimes copper or chrome plated. Especially looking for Symphony, AC9, Shield Grid 10B, World's Record Super 9, Shield Grid 9B, AW13, AW19, AW27, pointer dial Philharmonic, any Scott in these cabinets: Secretaire, Napier, Warwick, Ravinia Grande, Laureate Grande. Also want original literature, especially issues of THE SCOTT NEWS. Contact me first if you have anything SCOTT to sell. Jim Clark, 1292 Starboard, Okemos, MI 48864. (517) 349-2249.

WANTED — SONY

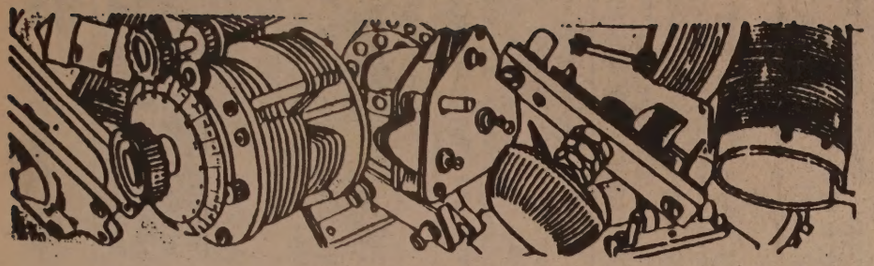
WANTED: OLD SONY radios. Jay Lewin, 400 east 54th Street, New York, NY 10022. (212) 935-5656.

WANTED — TEN TEC

WANTED: ANYTHING BY TEN TEC. Please state price and condition; condition unimportant: Herman F. Schnur, Rt. B Box 151, Greenville, NC 27858.

WANTED — ZENITH

ZENITH TRANSISTOR Trans-Oceanic 11 or 12 band radio- parts or complete. Have Rider TV manuals 2 thru 23 for offer. Wade, 657 14th Ave., Prospect Park, PA 19076.



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- Radios, The Golden Age - Philip Collins

and much, much more. Data Packages for American radios manufactured during the 1920's thru 1950's period plus our special research service for unknown model numbers are available. For free flyer send 2-stamp LSASE to Olde Tyme Radio Co., 2445 Lyttonsville Road, Silver Spring, Md. 20910.

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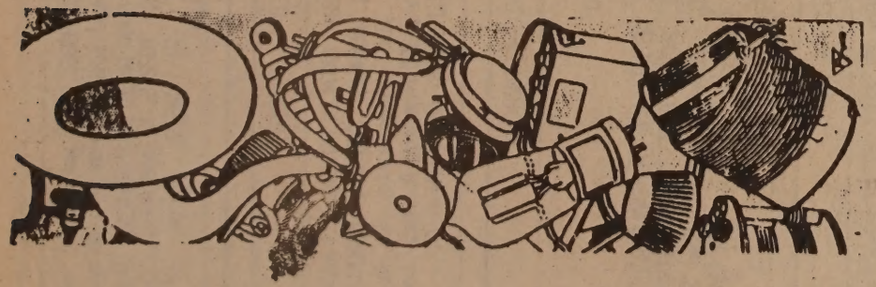

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